

## **CLAIMS**

What is claimed is:

- 1           1.       A heat sink, comprising:  
2           a base structure comprising a protruding thermal interface having an  
3           arcuate surface adapted to contact a processor assembly, wherein the arcuate  
4           surface is adapted to accommodate a bent configuration of the base structure  
5           induced by a mounting load applied to the base structure.
- 1           2.       The heat sink set forth in claim 1, wherein the arcuate surface is  
2           substantially flat in the bent configuration.
- 1           3.       The heat sink set forth in claim 1, comprising a plurality of heat  
2           transfer members extending from the base structure.
- 1           4.       The heat sink set forth in claim 1, wherein the arcuate surface  
2           comprises a semi-spherical surface.
- 1           5.       The heat sink set forth in claim 1, wherein the arcuate surface  
2           comprises a semi-cylindrical surface.
- 1           6.       The heat sink set forth in claim 1, comprising a plurality of spring-  
2           loaded fasteners coupled to the base structure.

1           7.       The heat sink set forth in claim 1, comprising a threaded fastener  
2       coupled to the base structure, wherein the threaded fastener comprises a dry  
3       lubricant.

1           8.       The heat sink set forth in claim 7, wherein the dry lubricant  
2       comprises a molybdenum disulfide plating.

1           9.       The heat sink set forth in claim 1, wherein the protruding thermal  
2       interface comprises copper.

1           10.      A system, comprising:  
2       a circuit board comprising a plurality of chip contacts;  
3       a processor package comprising a plurality of contacts aligned with the  
4               plurality of chip contacts;  
5       a heat sink comprising an arcuate surface extending from a base structure  
6               of the heat sink, wherein the processor package is compressively  
7       mounted between the circuit board and the arcuate surface.

1           11.      The system set forth in claim 10, wherein the arcuate surface  
2       comprises a curvature substantially flattened by a bent configuration of the base  
3       structure.

1           12.     The system set forth in claim 11, wherein the bent configuration is  
2 induced by a mounting load applied to the heat sink.

1           13.     The system set forth in claim 10, further comprising an electrical  
2 interposer disposed between the processor package and the circuit board, wherein  
3 the electrical interposer comprises a compressible electrical contact extending from  
4 the plurality of contacts to the plurality of chip contacts.

1           14.     The system set forth in claim 10, wherein the processor package  
2 comprises a heat spreader, a substrate having the plurality of contacts, and a  
3 processor disposed between the heat spreader and the substrate.

1           15.     The system set forth in claim 14, wherein the heat spreader  
2 overhangs a perimeter of the processor.

1           16.     The system set forth in claim 10, comprising a plurality of spring-  
2 loaded mounting fasteners coupled to the heat sink.

1           17.     The system set forth in claim 10, comprising a plurality of threaded  
2 mounting fasteners coupled to the heat sink, wherein threads of the plurality of  
3 threaded mounting fasteners comprises a dry lubricant coating.

1           18.     The system set forth in claim 10, comprising a thermal interface  
2 material disposed between the arcuate surface and the processor package.

1            19.    A method of processor mounting, comprising:  
 2            aligning an arcuate surface of a heat sink adjacent a surface of a processor  
 3            assembly; and  
 4            compressively mounting the processor assembly between the arcuate  
 5            surface and a circuit board.

1            20.    The method set forth in claim 19, wherein aligning the arcuate  
 2            surface comprises centering a convex boss structure with a heat spreader of the  
 3            processor assembly.

1            21.    The method set forth in claim 19, wherein compressively mounting  
 2            comprises bending the heat sink in a curvature opposite the arcuate surface.

1            22.    The method set forth in claim 19, wherein compressively mounting  
 2            comprises substantially flattening the arcuate surface.

1            23.    The method set forth in claim 19, comprising positioning a thermal  
 2            interface material between the arcuate surface and the surface of the processor  
 3            assembly.